

axmi014	---	MKNMNSYQNTNEYEILDGSPNNNTMSNRYP	---	FAKDPNIFPIN	---	LDACQGR	48						
cry1Aa	---	MDNNPNINECIPYN	---	CLSNPE	---	VEVL	24						
cry1Ac	---	MDNNPNINECIPYN	---	CLSNPE	---	VEVL	24						
cry1Ia	---	MKLKNQDKHQSFSSNAVKDKISTDS	---	LKNETDIELQNIHEDCLKMSEYE	---	VEVL	49						
cry2Aa	---	MNVLSGRITICDAYNVVAHDPPFSFEHKS	---	LDTIQKEMEWKRTDHSLYVAPV	---	VEVL	54						
cry3Aa1	MIRKGRKMPNPNRSEHDTIKTTENNEVPTNHVQYPLAETPNPTLEDLNYKEFLRMTADN	60											
cry3Bb	---	MNPNRSEHDTIKVTNSSELQTNHNPYPLADNPNSPTLEELNYKEFLRMTEDS	52										
cry4Aa	---	MNPQNKEYETLNASQKLNISNNYTRYPIENS	PKQLQSTNYKDWLNMCCQN	54									
cry4Ba	---	MN	---	SGYPLANDLQSGMKNTNYKDWLNMCCENN	30								
cry6Aa	---	MIIDSKTTLPRSHLHTIKLNSKKYCPGDMTNGNOFIISKQEWATIGAYI	51										
cry7Aa	---	MNLNLD	---	GYEDSNRLNNSLNP	---	TQKALSPSLKMNMYQDFLSITERE	47						
cry8Aa	---	MSPNNQNEYEIIDATPSTSVSSDSNRYPFANEPTDALQNMNYKDYKLMGSGE	52										
cry10Aa	---	MNPYQNKNEYEIFNAPSNGFSKSNNSRYRYPLANKPNQPLKNTNYKDWLNMCCQN	54										
cry16Aa	---	MHYGNRNEYDILNASSNDSNMSNTYPRYPLANPQDLNQNTNYKDWLNMCCG	53										
cry19Ba	---	MKEQNLNKYDEITVQAASDYDIRPIFQTN	GSATFNSNTNITTLTQAINSOAGAI	55									
cry24Aa	---	MNQYQNKNEYEILESSQNMMNPNRY	---	FADDPNAVNMKNYKDWVNECEGS	51								
cry25Aa	---	MNPYQNKSECEILNAPLNINMNP	---	FANDPNAVNMKNYKDWLNECDGI	51								
cry39Aa1	---	NSYENKNEYEILNDSKK	---	SNMSPYLRYP	LANDSLASMQNTNYKDWLTMCDR	51							
cry40Aa1	---	NSYENKNEYEILESSNNNTNMPNRY	---	FANDRDMSTMS	---	FNDCCQGI	44						
axmi014	P	---	WQDTWESVSDIVTIGTYLIQFLLEPGIGIPVIFSIINKLIPSSQSV	97									
cry1Aa	G	---	GERIETGTPIDISLSLTQFLLS	---	EF	---	VPGAGFVLGLVDIIWIGIFPSQ	---	72				
cry1Ac	G	---	GERIETGTPIDISLSLTQFLLS	---	EF	---	VPGAGFVLGLVDIIWIGIFPSQ	---	72				
cry1Ia	N	---	VEPFVS	---	ASTIQTGIGIAGKILG	---	TLGVPPFAGQVASYLSFILGELWP	---	KGKN	99			
cry2Aa	G	---	TVSSFLKKVGS	---	LIG	---	---	---	---	KRIILSELWGIIFPSGSTN	88		
cry3Aa1	N	---	TEALDSSTTKDVIQKISVVVGDLG	---	VVGPFPGALVSFYTNFLNTIWPSE	---	D	---	112				
cry3Bb	S	---	TEVLDNSTVKDAGTGISVVGQILG	---	VVGVPFAGALTSFYQSFLNTIWP	---	SDA	---	D	105			
cry4Aa	Q	---	QYGGDEFETIDSG	---	ELSA	---	YTI	---	VGTVLTGFGFTPLGLALIGFGLIPVLFP	---	PAQDQS	111	
cry4Ba	Q	---	QYGV	---	VNPAAINSS	---	---	---	---	---	---	---	84
cry6Aa	Q	---	---	---	---	---	---	---	---	---	---	---	94
cry7Aa	Q	---	PEALASGNTAINTVSVTGATLS	---	ALGVPGAS	---	FITNFYKLIAGLLWPEN	---	KGKI	---	99		
cry8Aa	NPEL	---	FGNPETFIS	---	SSTIQTGIGIVGRILG	---	ALGVPPFASQIASFYSPFIVGQ	---	WPSKSV	---	D	109	
cry10Aa	Q	---	QYGNAGNFASSETIVGVSAGI	---	VVGTMGLG	---	AFAPVLAAGIISFGTLLP	---	PIFWQSDPA	---	113		
cry16Aa	---	YHIENPREASVRA	---	GLGKGLGIVSTIVG	---	FFGSGI	---	ILDTIGLFYQISELLWP	---	DEDD	---	T	107
cry19Ba	AG	---	---	---	---	---	---	---	---	---	---	---	104
cry24Aa	N	---	---	---	---	---	---	---	---	---	---	---	100
cry25Aa	T	---	---	---	---	---	---	---	---	---	---	---	99
cry39Aa1	---	TD	---	---	---	---	---	---	---	---	---	---	103
cry40Aa1	S	---	---	---	---	---	---	---	---	---	---	---	93

Fig. 1A

axmi014	A----	ALSIDLVSIIRKEVDESVLSDGVADF-EGEMTAYQDYVYLHYLEDWLT	146
cry1Aa	----	WDAFPVQIEQLINQRIIEFARNQAISRL--EGLSNLYQIYAESFREWEADPT--	122
cry1Ac	----	WDAFLVQIEQLINQRIIEFARNQAISRL--EGLSNLYQIYAESFREWEADPT--	122
cry1Ia	Q----	WEIFMEHVEEIIINQKISTYARNKALTDL--KGLDALAVYHDSLESWGNRN--	150
cry2Aa	L----	MODILRETEQFLNQLNTDLARVNAEL--IGLOANIREFNQQVDNFLNPTQN--	140
cry3Aa1	P----	WKAFAEQVEALMDQKIADYAKNKALAE--QGLQNNVEDYVSALSSWQKNPVS--	164
cry3Bb	P----	WKAFAEQVEALMDQKIADYAKNKALAE--QGLQNNVEDYVSALSSWQKNPVS--	157
cry4Aa	-NTWSDFI	QTKNIKEIASTVSNANKIL--NRSFNVISYHNHLKTWENPNP--	164
cry4Ba	PERVWDM	TNTGNLIDQTVTVYVRTDANAKM--TVVKDYLDQYTKTNTWKREPN--	139
cry6Aa	EW--	WNKNLYPLIIKSANDIASYGFVAGDPS--IKKDYFKKLQDELNDIVDNNSD--	147
cry7Aa	----	WDEFMTEVEALIDQKIEEYVRNKAIAEL--DGLGSALDKYQKALADWLKQD--	149
cry8Aa	I----	WGEIMERVEELVDQKIEKYVKDKALAE--KGLGNALDVYQOQSLDLENRN--	160
cry10Aa	N--	VWQDLN-IGGRPIQIEIDKNIINVLTSIV--TPIKNQLDKYQEFFDKWEP-ART--	164
cry16Aa	QYTWQD	IMNHVEDLIDKRITTEVIRGNAIRTL--ADLQGVDDYNNWLKKWKDDPKS--	162
cry19Ba	GILGAP	KGIGFELDTVANAPEDEVGDSFGHGAMKGSFPSPNGYPHAGFVSTDKNSRWLS	164
cry24Aa	S----	QVSMVQVHQIINRRIQETIIDLGESSL-NGLVAIYNRDYLGALEAWNN--	149
cry25Aa	P----	LSVADVNRLIREALDQNAINRATGKFN-GLMDTYNTVYLKNLDWYDTRIPANP	153
cry39Aa1	HQYTWED	LMNHIEELMDERLETEKRTTALDDL--RGLKALLGLFRDAFDSWEKNQND--	158
cry40Aa1	S----	ALSIDLLSIIRKEVADSVLSDAICRFLDGLKKNYREYYPYLEAWLKDQKPLQ-	148
axmi014	KSNPKL	ADVVVKQFOAREEDFTKLLAGSLSRQK-----AEILLPTVYVQAANVHLLLRD	201
cry1Aa	--	NPALREEMRIQFNDMNSALTTAIPLLAQVN-----YQVPLLSVYVQAANHLVLRLD	174
cry1Ac	--	NPALREEMRIQFNDMNSALTTAIPLFAVQN-----YQVPLLSVYVQAANHLVLRLD	174
cry1Ia	--	NTRARSVVKSQYIALELMFVKLPFAVSG-----EEVPLLPPIYAQAANHLHLLLRD	202
cry2Aa	----	PVPLSITSSVNTWQQLFNRLPQFIQ-----YQLLLPLFAQAANHLHLLLRD	190
cry3Aa1	SRNPHS	QGRIRELFSQAESHFRNSMPSPFAISG-----YEVFLFTTYAQAANTHLLLRD	218
cry3Bb	LSKRSQ	DRIRELFSQAESHFRNSMPSPFAVSK-----FEVFLFTTYAQAANTHLLLRD	211
cry4Aa	Q-NTQD	VRTQIQLVHYFQNVIPELVNSCPPNPSPDCDYNNILVSSYAQAANHLHLLLRD	223
cry4Ba	QSYRTA	VTQFNLTSAKLRETAVYFSNLVG-----YELLLLPPIYAQVANFNLLLRD	191
cry6Aa	----	DDAIAKAIKDFKARCGILIKEAKQYEEAAK-----NIVTSLDQFLHGDQKKEGVIN	199
cry7Aa	--	DPEAILSVATEFRIIDSLFEFSMPSPKVTG-----YEIPLLTVYAQAANHLHLLLRD	201
cry8Aa	--	DARTSVVSNQFIALDINFVSSIPSPFAVSG-----HEVLLLAIVYAQAANHLHLLLRD	212
cry10Aa	HANAKA	VHDLFTTLEPIIDKDLMLKNNAS-----YRIPTLPAYAQIATWHLLLRD	216
cry16Aa	TGNLST	LVTKFTALDSDFNGAIRTVNNOSPG-----YELLLPVYAQIANHLHLLLRD	216
cry19Ba	ALAQMR	IAAPNGRWRRLERIRWDARNKELTANQLDFTNIDITVGEKPRTPRTATWRLVNP	224
cry24Aa	KSNINY	QTNVAEAFKTVREFFTKLGIYRTSS-----SQITLLPTTQAANHLHLLLRD	204
cry25Aa	QGDSQL	REARRSLEEIERDFRKALAGEFAEAG-----SQIVLLPIYAQAANHLHLLLRD	208
cry39Aa1	PIAKNR	VGGYFEDVHTFVKDMASIFS--ATN-----YEVLLLPVYAQAANHLHLLLRD	210
cry40Aa1	KTNNSD	IGQLVKYFELSERDFNEILGGSILARNN-----AQILLLPYFCASCCKQLLRD	203

Fig. 1B

axmi014	AVKYKKEWG-----LVCPLYPGSG---RTDCNERLKAKIKETYNICVGVWYKGLDQI	251
cry1Aa	VSVFQQRWGF-----AATINSRYNDLTRLIGNYTDYAVRWYNTGLERV	218
cry1AC	VSVFQQRWGF-----AATINSRYNDLTRLIGNYTDYAVRWYNTGLERV	218
cry1Ia	ASIFGEWGLS-----SSEISTFYNRQVERAGDYSDHCVKWKYSTGLNNL	246
cry2Aa	VILNADEWGIS-----AATLRTYRDYLRNTRDYSNYCINTYQYAFRGL	234
cry3Aa1	AQIYGEWGYE-----KEDIAEFYRQLKLTQYTDHCVKWNVVGDLKL	262
cry3Bb	AQVFEWEGYS-----SEDVAEFYRQLKLTQYTDHCVKWNVVGDLKL	255
cry4Aa	AVKFEAYLKNRQFD-----YLEPLTAIDYYPVLTKAIEDYTNVCVTTYKKGLNLI	275
cry4Ba	G-----LINAQEMS-----LAR--SAGDQLYNTMVQYTKETIAHSITWYKGLDVL	235
cry6Aa	IQR-----LKEVQNALQAHESSPAHKELLEKV	229
cry7Aa	STLYGDKWGFT-----QNNIEENYRQKKRISEYSDHCTKWYNSGLSRL	245
cry8Aa	ASIFGEWGF-----PGEISRFYRQVQLTAEYSDYCVKWKYKIGLDKL	256
cry10Aa	AATYNIWLQNGIN-----PST-FNSSNYQYGLKRKIQEYTDYCIQYNAGLTMI	267
cry16Aa	AQIYGDKWSA-----RANARDNYQIQLEKTEYKTEYCINWYKGLND-	260
cry19Ba	AFELDKYTFVIG-----SATGASNNLHQIGIEFDAYFTKPTIEANNVNPV	272
cry24Aa	AVMYQEGWNLQSHIN-----YSKELDDALEDYTNVCVEYTKGLNAL	246
cry25Aa	AMQFRTDLGLIRPVG-----VPITTSADPFSEFFLLRIKKYTDHCHISYYDDGLAKI	260
cry39Aa1	GVIYGSRWG-----IAPAADFYHDQLLKYTATYANHCVTWYNNGLAQQ	253
cry40Aa1	AVQYEQWFPFLSAENVRSELISPSNGCDFTGDIYVERLCKKIAEYTDYCEYWYQAGLNQI	263

axmi014	ROAGTSAB-----VMSKFNKFRREMTLAVLDIIAIFPYDFEYKPYLA-----TSVELTR	300
cry1Aa	WGPDSR-----DWVRYNQFRRELTLTVLDIVAFNSYDSRRYPPIR-----TVSQLTR	265
cry1AC	WGPDSR-----DWVRYNQFRRELTLTVLDIVAFNSYDSRRYPPIR-----TVSQLTR	265
cry1Ia	RGTHAE-----SWVRYNQFRRELTLTVLDIVAFNSYDSRRYPPIR-----TVSQLTR	293
cry2Aa	NTRLHDMLEFR--TYMFLNVFEYVSINSLFKYQSLMVSSGANLYASG-----SGPQQTQ	286
cry3Aa1	RGSSYE-----SWVFNFRYRREMTLTVLDLIALFPLDVRLYPKE-----VKTELTR	309
cry3Bb	RGSTYD-----AWVKFNFRREMTLTVLDLIVLFPFYDIRLYSKG-----VKTELTR	302
cry4Aa	KTTSDNLDGNINWNTYRTKMTTAVLDLVALFPNYDVGKYPPIG-----VQSELTR	328
cry4Ba	RNKSNG-----QWITFNDYKREMTIQVLDLILAFASYDPRRYPADKIDNTKLSKTEFTR	289
cry6Aa	KNLKT-----LERTIKAEQDLEKKVEYSFLLGPLLGFWVEILEN-----TAVQHIK	277
cry7Aa	NGSTYE-----QWVFNFRREMTLTVLDLIVLFPFYDIRLYSKG-----TAVQHIK	277
cry8Aa	KGTTSK-----SWLNYHQFRREMTLTVLDLIVLFPFYDIRLYSKG-----TAVQHIK	292
cry10Aa	RTNTNA-----TWNNYNTYRLEMTLTVLDLIALFNPYDPEKYPPIG-----VKSSELIR	314
cry16Aa	-----FRTAG-----QWVFNFRYRREMTLTVLDLIALFNPYDPEKYPPIG-----VKSSELIR	314
cry19Ba	GATFNPKYPGINLRATDEIDGDLTSKIIVKANNVNTSKTGYYVT-----YVENSYGE	327
cry24Aa	R--GSTAI-----DWLEFNSFRDMLTVLDLIVAFNPYDPEKYPPIG-----YVENSYGE	327
cry25Aa	RSRGSDDGE-----TWWEFNKFRREMTLTVLDLIVAFNPYDPEKYPPIG-----YVENSYGE	293
cry39Aa1	KELFAKSP-----NWNRFNAYRDMTITVLDLIALFNPYDPEKYPPIG-----YVENSYGE	309
cry40Aa1	KQAGTGAD-----TWAKFNKFRREMTLTVLDLIALFNPYDPEKYPPIG-----YVENSYGE	302

Fig. 1C

axmi014
cry1Aa
cry1Ac
cry1Ia
cry2Aa
cry3Aa1
cry3Bb
cry4Aa
cry4Ba
cry6Aa
cry7Aa
cry8Aa
cry10Aa
cry16Aa
cry19Ba
cry24Aa
cry25Aa
cry39Aa1
cry40Aa1

EIYTDVGYSG-----GNYGWERFFS--FNSVEANGTRGPGVLTWLQAIDYSHSINLQL 353
EIYTNVLENFDGS-----FRG--MAQRIEQINRQPHLMDILNSITIYTDVHRGFN 314
EIYTNVLENFDGS-----FRG--SAQIERISRPHLMDILNSITIYTDHARGYY 314
EVYTDAGTVLPHPSFTSTTWNNAAPSFAIEAAVVRNPHLLDFLEQVTIYSLLS--RW 351
SFTAQNPFLYSLF-----QVNSNYILSGISGRSLSTTFNIGGLPGSTTTHSLNS 337
DVLTDPIVGVNNLR-----GYGTTFSNIEN-YIRKPHLFDVILHRIQHFHTRFQPGYY 359
DIFTDPIFSLNTLQ-----EYGTFLSIEN-SIRKPHLFDVILQIEFHTRFQPGYF 352
EIYQVLNF--EES-----PYKYDFQYQEDSLTRRPHLFTWLDSLNFYEKAQTTPN 377
EIYTAL-----VES-----PSSK-SIAALEALTRDVHLFTWLKRVDFTWNTIYQDL 335
NQIDEIKK-----QLDSAQHDLDLDRDKIIGMLNSINTDIDN----- 313
EVYTDVLSISNP-----DTGSPFSQMENTAIRTPHLVDYLDYDELYIYTSYKAFS 343
DVYTDPIAFNIVTSTGFCNPWSTHSGILFYEVENNVRPPHLPDILSSVEINTSRGGITL 363
EYITNVN-----SDTFTITTELENGLTRNPTLFTWINQGRFYTRNSRDIL 359
EIYSDVINGEIIYGL-----MTPYFSFEKAESLYTRAPHLFTWLKGRFVTNS-ISYW 357
SDEKTIETVTFVSNPTIIASDVEIEKGESFNPLTDSRVGLSAQDSLGNIDITQNVKVKSSNV 387
KIYTDVGRDTSPS-FGDWNTGRTLAFNNDLEREVTDSPSLVKWLGDMTIYTGAIDSYR 352
VWYTDVPGCFGNRK-----SDIFSLNFDYLENRLTRPREPFNYLNSVQLFEASTVSN 363
EIYSDVLNLDVYGV-----QQT--DLNKNEAAFTSRPHLVTRLRGDFDYTRTKYAYW 352
EIYTDVGYSS-----GTYSWLKYWTGAFTLEANGTRGPGVLTWLRSIGIYNEYVSR-- 365

axmi014
cry1Aa
cry1Ac
cry1Ia
cry2Aa
cry3Aa1
cry3Bb
cry4Aa
cry4Ba
cry6Aa
cry7Aa
cry8Aa
cry10Aa
cry16Aa
cry19Ba
cry24Aa
cry25Aa
cry39Aa1
cry40Aa1

GYLSG-----WGG--TRHYEDFTKNGAFAQRMSTTSNNP-----RNIIFGNTDIFKIISL 402
-----YWSGHQITASPVGFCGPEFAFLFCGNAGNAAPP-VLVSITGLGIFRTLSS 363
-----YWSGHQIMASPVGFCGPEFTFPLYGTMGNAAPQQRIVAQLGQGVYRTLSS 364
SNTQYMN--MWGGHKLFRITIGTLNISTQ-----GSTNTSINPVTLPFTSRDVYRTESL 404
ARVN-----YSGGVSSGLIGATNLNHNPNCSVLPLSTPFVRSWLDSDGTREGVATS 390
GNDSFN--YWSGNYVSTRPSIGSNDIITSPFYGNKSSEPVQ--NLEFNGEKVYRAVAN 413
GKDSFN--YWSGNYVETRPSIGSKTITSPFYGDKSTEPVQ--KLSFDGQKVYRTIAN 406
N-----FFTSHYMFHYTLNDSQKSSVFGNHNVTDKLS-LGLATNIYIFLLNVI 427
R-----FLSANKIGFSYTNSSAMQESGIYSSGFGSNLTHQIQLNSNVYKTSITDT 386
-----LYSQGEAIKVFQKLOG-----IWATIGAQIENLRTT 345
HEIQDILF--YWSAHKVSFKKSEQSN-LYTTGIYKTSGYISS-GAYSFHGNDIYRTLAA 399
NNDAYIN--YWSGHTLKYYRTADSTVYTA----NYGRITSEKNSFALEDRIFEINST 416
DPYDIF--SFTGNQMAFTHTNDDRNIIWGAHVHNIISQDTSKVFPFVRNKPDKVEIV 415
T-----FLSGQNKYSYTNSSINEGSRGQDIDYGGTSTINIPSNYSYVNLWTE 408
DTSKPGE--YEVVFEVTDGFGKAEKDFKVTVLQPSIEANNEVEIDDSLDPLTDAKV 444
PTSPGDRIGWYGNINAFYHTRTDVVMFRQTGDYAYEDPSTFISNIIYDDIYKLDLRAA 412
NGEVLRG--NLKNIMFEGGWTSASGDGVTTGTPTFTMDWSYGWGYPKRYAEITSR 418
R-----YLAGHTNYFSFTGNGTIYSSSFN--NWYDTDMTKSTINIPDYANIYKLWTK 402
-YFSG-----TRHYEDYTTGNGNFQRMSTTSNDL-----RDISFPNSDIFKIESK 413

Fig. 1D

axmi014	ARYAMQPFVGYISIPRHLVSRAEFPTTLNTFLYEVNSSGYS-QTIESVLPGLNKDLPPS-	460
cry1Aa	P---LYRRRIILSGGNNQELFVLD---GTEFSFASLTTLNLPSTIYRQRTVDSLDVIPPQ	417
cry1Ac	T---LYRRPFN-IGINNQQLSVLD---GTEFAYG-TSSNLPNAVYKSGTVDSLDLDEIPPQ	416
cry1Ia	AGLNLFLTQPVNGVPRVDFHWKFV---THPIASDNFYYPGYAGIG---TQLQDSENELPPE	459
cry2Aa	TNWQTESFQTTLSLRGAFSARGSNYPDPYFIRNISGVPLVIRNEDLTRPLHYNQIRN-	449
cry3Aa1	TNLAVWPS-AVYSGVTKEVFSQYN---DOTDEASTQTYDSKRNVG-AVS-WDSIDQLPPE	467
cry3Bb	TDVAAPNGKVYLGVTKVDFSQYD---DQKNETSTQTYDSKRNNG-HVSAQDSIDQLPPE	462
cry4Aa	SLDNKYLDYNNISKMDFFITNGTRLLLEKELTAGSQIITYDVNKNIFGLPILKRRENQGN	487
cry4Ba	SSP-----SNRVTKMDFYKIDGT---LASYNSNITPTPEGLRTTFGFSSTNENTPNQ--	435
cry6Aa	SLQEVQSDDDADEIQIELEDASDA-----	369
cry7Aa	PSVVVYPYTON-YGVEQVEFYGVK---GHVHYRGDNKYDL-----TYDSIDQLPPD	446
cry8Aa	VANLANYQKAYGVPGSWFHMVKR---GTSTTAYLYSKTHTALQGCTQVYESSEIDPLD	473
cry10Aa	RHR-----EYSDIIEYEMIFFSNSSE---VFRYSSNSTIENNYKRTDSYMPIKQWKNEE--	466
cry16Aa	NYEYIYPWGDPNITKMNFSVTDNNSKELIYGAHRTNKPVVRTDFDLTNKEGTELAK-	467
cry19Ba	GLRAKDSLGNIDITKDIKVFNNVDTNSNGKYEIVFEVDRFGKKAESIEVLVLGEPSEIE	504
cry24Aa	AVSTIQGAMD---TTFGVSSSRFFDIRGNQLYQS-NKPYPSLPITITFPGE-ESSEGN-	466
cry25Aa	SQALPGLNNSIHVIVGIDSFRAIGPGGQGDHTFSLPGDMYDCGVQINPLEDYRNSDH-	477
cry39Aa1	SYTNI SPYTDVIGISQWQFSLTNN---QQLTYTGSAPKYPVRETFFPEIPTDEKPLT--	457
cry40Aa1	AIMNLVGEIN-ARPEYRVSRAEFSESTAFIYLYDAGNSGLSSMTITSKLPGI-KNPEPS-	470
axmi014	-----RTNYSHRLSNAACVQNETSRVN-----VFGWTHTSMKKDNRIYPDKITQI	505
cry1Aa	DNSVPPRAGFSHRLSHVTMLSQAG--AVY--TLRAPTFSWQHRSAEFNNIIPSSQITQI	473
cry1Ac	NNNVPPRQGFSHRLSHVSMFRSGFSNSVS--IIRAPMFSWIHRSAEFNNIIASDSITQI	474
cry1Ia	ATGQPNYESYSHRLSHIGLISASHVK-ALV--YS-----WTHRSADRTNTIEPNSITQI	510
cry2Aa	-----IESPSGTPGGARAYLVSVNHRKNN-----IYAANENGTMIHLAPEDYTCFTI	496
cry3Aa1	TTDEPLEKGYSHQLNVVMCFLMQGR-----GTIPVLTWTHKSVDFFNMIDSKKITQL	520
cry3Bb	TTDEPLEKAYSHQLNVAECFLMQDR-----GTIPFFTWTHRSVDFFNTIDAEEKITQL	515
cry4Aa	PTLFPTYDNYSHILSFITKLSIPATYKTQV-----YTFAWTHSSVDPKNTIYTHLTQI	541
cry4Ba	-----PTVNDYTHILSYIKTDVI--DYNSNR-----VSFAWTHKIVDPNNQIYTDITQV	483
cry6Aa	-----WLVVAQEARDFTLNAYSTNSRQN	392
cry7Aa	GE--PIHEKYTHRLCHATAIFKSTP--DYD--NATIPFSWTHRSABEYNNRIYPNKITKI	500
cry8Aa	RT-VPVAESYSHRLSHITSHSFSKNG-SAY--YGSFPVFWTHTSADLNNNTIYSDKITQI	529
cry10Aa	-----YGHSTLSYIKTDNYIFSVVRERRR---VAFSWTHTSVDFQNTIDLDNITQI	513
cry16Aa	-----YNDYNHILSYMLINGETFGQKRHG-----YSFAFTHSSVDPNNTIAANKITQI	515
cry19Ba	ANDVEVNGKETFEPLTDSRVGLRAKDSLGN---DITKDVKIKSSNVDTSKPGEYEVVFEV	561
cry24Aa	-----ANDYSHELLCDVKILQEDSSNICEG--RSSLLSHAWTHASLDRNNTILPDEITQI	518
cry25Aa	-----WISDMMTINQSVQLASNPQTAFS-----ALSLGWHHSSAGNRNVYVYDKITQI	527
cry39Aa1	-----YENYSHILSYMTS-AQHFGDKKIG-----YTFAMMHESVDFDNRVDPDKITQI	504
cry40Aa1	-----YRDYSHRLSNAACVAGNSRIN-----YVGWTHTSMSKYNLIYPDKITQI	515

Fig. 1E

axmi014
cry1Aa
cry1Ac
cry1Ia
cry2Aa
cry3Aa1
cry3Bb
cry4Aa
cry4Ba
cry6Aa
cry7Aa
cry8Aa
cry10Aa
cry16Aa
cry19Ba
cry24Aa
cry25Aa
cry39Aa1
cry40Aa1

PAVKAFAALPAGTGYAGYVVTAGPGYGGDVVTLPLQAS-----LKIRLTSAPTNKNYR 558
PLTKSTNLGSGTS-----VVGPGFTGGDILRRTPSQISTLRVNITAPL-----SQRYR 523
PAVKGNFLNG-S-----VISGPGFTGGDLVRLNSSGNNIQNRGYIEVPIHFPPSTSTRYR 528
PLVKAFNLSSGAA-----VVRGPGFTGGDILRRTNITGFDIRVNINPPF-----AQRYR 560
SPIHATQVNNQTR-----TFISEKFGNQDLSRFEQNT-----TARYTLRGNGNSYN 544
PLVKAYKLQSGAS-----VWAGPFTGGDIIQCTENG-----SAATYVTP-DVSYSQKYR 570
PVVKAYALSSGAS-----IEGPGFTGGNLLFLKESN-----SIAKFKVTLSAALLQRYR 567
PAVKANSILGASK-----VWQPGHTGGDLIDFKDH-----FKITCOHSNF-----QOQSYF 587
PAVKSNFLNATAK-----VIKPGHTGGDLVALTSNGTSLSRMEIOCKTISFNDPTRSYG 538
LPINVISDCNCS-----TTNMTSNQYSNPPTNMT-----SNQYM 427
PAVKMYKLDDPST-----VVGPGFTGGDLVKRGSTGYIGDIKATVNSPL-----SQKYR 550
PAVKGDMLYLGGS-----VWQPGFTGGDILKRTNPSILGTFAVTNGSL-----SQRYR 579
HALKALKVSSDSK-----IVKPGHTGGDLVILKDS-----MDFRVFLKNVSRQYQ 560
PVVKASSINGSIS-----IEKPGFTGGDLVKMRADSG-----LTMRFKAELLDKKYR 563
TDRFGKYVEKTIG--VIVPVIDDEWEDGNVNGWKFYAG-----QDIKLLKOPDKAYK 611
PAVTAYELRG-----NSSVWAGPGSTGGDLVKMSYHSV-----WSFKVYCS-ELKNYR 565
PATKTVREHP-----MIKPGFTGGDLADLSSND-ILQYDLRSDDYDRLTEDVPPFR 578
PAVKGDYLYQGY-----VKQPGHTGGDLVSMIRTD-----LGINVYFPQ-LDYR 550
PAVKAFDISD-TG--PGQVIAGPGHTGNGVNSLPPYSR-----LKIRLIPASTNKNYL 565

axmi014
cry1Aa
cry1Ac
cry1Ia
cry2Aa
cry3Aa1
cry3Bb
cry4Aa
cry4Ba
cry6Aa
cry7Aa
cry8Aa
cry10Aa
cry16Aa
cry19Ba
cry24Aa
cry25Aa
cry39Aa1
cry40Aa1

VRLRYASGGPGPFVRVERWSPSSVSANFSPATG-----GYSSFDYVDT 602
VRIRYASTNLQFHTSIDGRPINQGNFS---ATMSS-----GSNLQSGSFRTVGFTTP 573
VRVRYASVTPIHNLNVNWNSSIFSNTVP---ATATS-----LDNLQSSDFGYFESANA 578
VRIRYASTDLQFHTSINGKAINQGNFS---ATMNR-----GEDLDYKTFRTVGFTTP 610
LYLRVSSIGNSTIRVTINGRVYTVSNVTNTNDGVN-----DNGARFSDINIGNI 595
ARIHYASTSQITFTSLDGAFFNQYFD---KTINK-----GDTLTYSNLFASFSTP 620
VRIRYASTNLRLFVQNSNNDFLVIYIN---KTMNK-----DDDLTYQTFDLATTNSN 617
IRIRYASNGSANTRAVINLSIPGVAELG-MALNPTFSGTD---YTNLKYKDFQYLEFSN- 642
LRIRYAAAN--SPIVLNVSVYLVQSVRGTTISTESTFSRPNNIIPDLKYEEFRYKDPFDA 596
ISHEYTSLPNNFMLSRLSNLEKPCENN-----FMIYWYNNNS 464
VRVRYATNVSGQFNVIYINDKITLQTKFQNTVETIGE-----GKDLTYGSFGYIEYSTT 603
VRIRYASTDDEFETLYLG-DTIEKNRFN---KTMNDN-----GASLTYTEFKFASFTTD 628
VRIRYATNAPKTTVFLTGIDTISVELPSTSRQPN-----ATDLTYADFGYVTFPRT 613
VRIRYKCNYSKLIILRWKGEYIQQIHNISPTYG-----AFSYLESTIITTEN 614
GDYVFDYDSRHVAISKTIPLTDLQINTNVEITVYAKAE-----SGDHLKVTYK 659
VRIRYASHGNCQFLMKRWPSTGVAPROWARHNVQGT-----FNSMRYEAFKYLDI 616
IRIRCASIGVSTISVDNWGSSSPQTVASTAASLDT-----LKYESFQYVSI 625
IRIRYSTSSNGLYIYISPN-TKIVYLPPTTLVDGQP-----TFDPMDFSAFRVVEV 600
VRVRYTSTNGRLLVERWSPSSIINSYFFLPSTG-----PGDSFGYVDT 609

Fig. 1F

axmi014	LVTTFNQSGVEIIIIQNLSG----	YHLIVDKVEFIPIDIQIEKCTKCFEGDICRCGVQ	657
cry1Aa	FNFSNGSSVFTLSAHVFN-----	GNEVYIDRIEFVPAEVT-----	FEA---EY 614
cry1Ac	FTSSLGN---IVGVNFSG-----	TAGVIIDRFEPVPTAT-----	LEA---EY 616
cry1Ia	FSFLDQSTFTIGAWNFS-----	GNEVYIDRIEFVPEVT-----	YEA---EY 651
cry2Aa	VASDNTNVTLDINVTLSG-----	TPFDLMNIMFVPTNLP-----	630
cry3Aa1	FELSG--NNLQIGVTGLSA-----	GDKVYIDKIEFIPVN-----	652
cry3Bb	MGFSGDKNELIIIGAESFVS-----	NEKIYIDKIEFIPVQL-----	652
cry4Aa	--EVKFPAPQNISLVFNRSVYNTVT	LIDKIEFIPITRS-----	IREDEKQ 688
cry4Ba	IVPMRLSSNQLITIAIQPLNMTSNNQV	IIDRIEIIPIQTS-----	VLDATENQ 644
cry6Aa	DWYNNSDWYNN-----	645	475
cry7Aa	IQFPDEHPKITLHLSLSN-----	NSSFYVDSIEFIPVDVN-----	YAE---KE 644
cry8Aa	FQFRETQDKILLSMGDFSS-----	GQEVYIDRIEFIPVDET-----	YEA---EQ 669
cry10Aa	VPNKTFEGEDTLLMTLYGTPNHSYN-	IYIDKIEFIPITQS-----	VLDYTEKQ 660
cry16Aa	IFDLTMEVTPYGRQFVED-----	IFSLILDKIEFLPTN-----	648
cry19Ba	KDPAGPEEPPVFNRLISTG-----	TLVEKDYRELKGTFR-----	VT 695
cry24Aa	FTITPEENNFAFTIDLESG-----	GDLFIDKIEFIPVS-----	GSAFEYE-----GKQ 659
cry25Aa	PGNYFDSAPRIRLLRQPG-----	RLLVDRIEIIPVNFFP-----	660
cry39Aa1	PASFRASVAGYTNFTIEAG-----	FGPVYIDKIEFIPDNTT-----	TLEYEGGR 644
cry40Aa1	LVTTFNQSGVEIIIIQNLD-----	TPINVDKVEFIPVN-----	STALEYE-----GKQ 651
axmi014	SLETKKEIVNSLFIN-----	672	672
cry1Aa	DLERAQKAVNELFTSSNQIGLKTVDY	HIDQVSNLVECLSEFCLEKQELSEKVKHAK	674
cry1Ac	NLERAQKAVNALFTSTNQIGLKTVDY	HIDQVSNLVTYLSDEFCLDEKRELSEKVKHAK	676
cry1Ia	DFEKAQEKVTALFTSTNPRGLKTDV	KDYHIDQVSNLVECLSEFCLEKRELFEIVKYAK	711
cry2Aa	-----PLY-----	633	633
cry3Aa1	-----	633	633
cry3Bb	-----	633	633
cry4Aa	KLETVQOIINTFYANPIKNTLQSEL	TDYDIDQAANLVECISEELYPKMKMLLLDEVKNAK	748
cry4Ba	NLESEREVVALFTNDAKDALNIGTTD	YDIDQAANLVECISEELYPKMKMLLLDEVKNAK	704
cry6Aa	-----	704	704
cry7Aa	KLEKAQKAVNTLFE--GRNALQKVD	TDYKVDQVSIIVDCISGDLVPNEKRELQNLVKYAK	703
cry8Aa	DLEAAKAVNALFTNTKD--GLRPGV	TDYEVNQAAANLVECLSDDLVPNEKRLFFDAVREAK	728
cry10Aa	NIEKTQKIVNDLFVN-----	675	675
cry16Aa	-----	675	675
cry19Ba	ELNKAPLIIVENFGAGYIGGIRIVKIS-	672	722
cry24Aa	NIEKTQKAVNDLFIN-----	674	674
cry25Aa	LSEQUENKSVDSLFIN-----	675	675
cry39Aa1	DLEKTKNAVNDLFTN-----	659	659
cry40Aa1	SLEKAQDVVNDLFBK-----	666	666

Fig. 1G